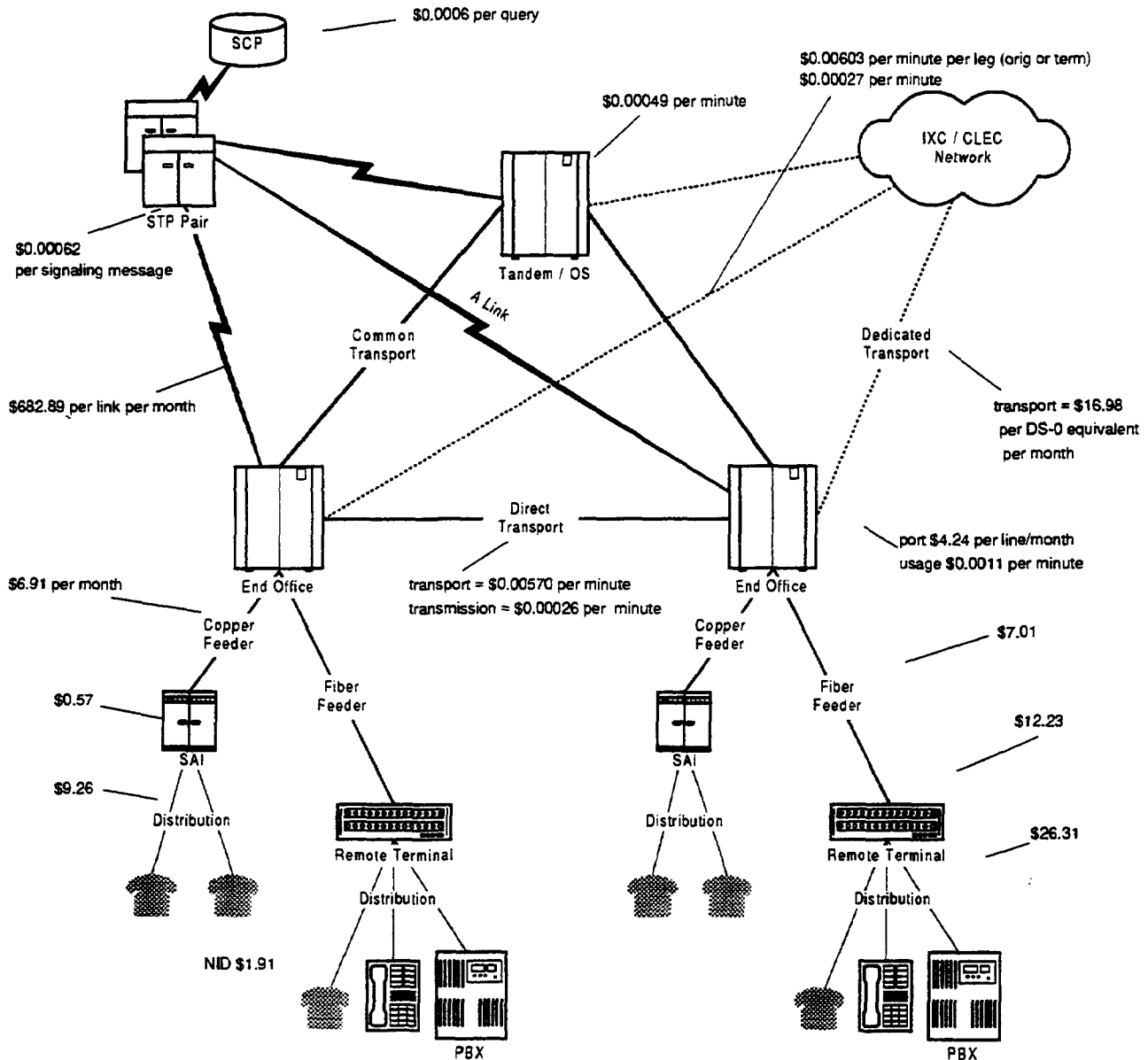


Unbundled Network Elements - SWBT's Inputs

Missouri / Southwestern Bell



COST OF NETWORK ELEMENTS - SWBT's Inputs

**Missouri
Southwestern Bell**

Loop elements	0-5 lines/sq mi	5-100 lines/sq mi	100-200 lines/sq mi	200-650 lines/sq mi	650-850 lines/sq mi	850-2550 lines/sq mi	2550-5000 lines/sq mi	5000-10000 lines/sq mi	>10000 lines/sq mi	Totals
NID										
Annual Cost	\$ 645,636	\$ 6,021,843	\$ 2,356,647	\$ 7,046,794	\$ 1,922,147	\$ 19,815,552	\$ 16,955,910	\$ 6,923,464	\$ 2,937,919	\$ 64,425,913
Unit Cost/month	2.94	2.51	2.02	2.06	1.99	2.04	1.99	1.76	0.85	1.91
Loop Distribution (DLC)										
Annual Cost	\$ 29,664,661	\$ 154,139,134	\$ 25,612,185	\$ 37,733,445	\$ 6,493,982	\$ 36,218,088	\$ 13,427,970	\$ 3,912,138	\$ 1,769,718	\$ 308,971,321
Unit Cost/month	135.18	66.55	32.14	19.97	14.85	11.39	7.58	6.58	3.30	26.31
Loop Distribution (non-DLC)										
Annual Cost	\$ -	\$ 3,885,870	\$ 11,465,963	\$ 26,389,920	\$ 7,658,878	\$ 68,529,021	\$ 52,373,051	\$ 22,949,833	\$ 10,283,314	\$ 203,535,849
Unit Cost/month	-	46.70	30.89	17.30	14.44	10.66	7.74	6.86	3.52	9.28
Loop Distribution (all)										
Annual Cost	\$ 29,664,661	\$ 158,025,004	\$ 37,078,147	\$ 64,123,365	\$ 14,152,859	\$ 104,747,109	\$ 65,801,021	\$ 26,861,971	\$ 12,053,032	\$ 512,507,170
Unit Cost/month	135.18	65.86	31.75	18.78	14.63	10.90	7.71	6.81	3.48	15.20
Loop Concentration (DLC)										
Annual Cost	\$ 6,791,345	\$ 38,324,887	\$ 9,162,167	\$ 20,441,895	\$ 4,832,310	\$ 33,902,528	\$ 19,181,854	\$ 6,518,615	\$ 4,662,945	\$ 143,618,546
Unit Cost/month	30.95	16.55	11.50	10.82	10.60	10.66	10.83	10.96	8.69	12.23
Loop Concentration (non-DLC)										
Annual Cost	\$ -	\$ 80,379	\$ 257,766	\$ 906,180	\$ 314,208	\$ 3,882,249	\$ 4,458,336	\$ 2,060,971	\$ 780,991	\$ 12,541,081
Unit Cost/month	-	0.97	0.69	0.59	0.59	0.57	0.66	0.62	0.27	0.57
Loop Concentration (all)										
Annual Cost	\$ 6,791,345	\$ 38,405,267	\$ 9,419,933	\$ 21,348,076	\$ 4,946,518	\$ 37,584,777	\$ 23,640,190	\$ 8,579,585	\$ 5,443,937	\$ 156,159,627
Unit Cost/month	30.95	16.01	8.07	6.25	5.11	3.91	2.77	2.18	1.57	4.63
Loop Feeder (DLC)										
Annual Cost	\$ 9,032,438	\$ 29,581,864	\$ 5,773,229	\$ 8,972,682	\$ 1,649,858	\$ 14,338,586	\$ 7,433,975	\$ 3,026,945	\$ 2,511,933	\$ 82,321,500
Unit Cost/month	41.16	12.77	7.25	4.75	3.77	4.51	4.20	5.09	4.68	7.01
Loop Feeder (non-DLC)										
Annual Cost	\$ -	\$ 844,293	\$ 2,677,660	\$ 10,863,088	\$ 3,562,422	\$ 41,743,843	\$ 49,353,601	\$ 26,730,813	\$ 16,030,844	\$ 151,806,564
Unit Cost/month	-	10.15	7.21	7.12	6.72	6.49	7.29	7.99	5.48	8.91
Loop Feeder (all)										
Annual Cost	\$ 9,032,438	\$ 30,426,156	\$ 8,450,889	\$ 19,835,780	\$ 5,212,280	\$ 56,082,409	\$ 56,787,576	\$ 29,757,758	\$ 18,542,777	\$ 234,128,063
Unit Cost/month	41.16	12.88	7.24	5.81	5.39	5.84	6.65	7.55	5.36	8.94
Total Loop (DLC)										
Annual Cost	\$ 46,134,080	\$ 227,858,892	\$ 42,155,345	\$ 71,047,410	\$ 13,844,702	\$ 90,953,257	\$ 43,559,574	\$ 14,502,342	\$ 9,400,274	\$ 559,255,876
Unit Cost/month	210.22	98.38	52.91	37.60	31.21	28.59	24.60	24.38	17.51	47.63
Total Loop (non-DLC)										
Annual Cost	\$ -	\$ 5,019,378	\$ 15,150,272	\$ 41,306,604	\$ 12,589,102	\$ 127,076,590	\$ 119,625,123	\$ 57,620,436	\$ 29,577,391	\$ 407,964,897
Unit Cost/month	-	60.32	40.82	27.08	23.74	19.77	17.67	17.21	10.12	18.56
Total Loop (all)										
Annual Cost	\$ 46,134,080	\$ 232,878,271	\$ 57,305,617	\$ 112,354,014	\$ 26,233,804	\$ 218,029,847	\$ 163,184,697	\$ 72,122,778	\$ 38,977,664	\$ 967,220,772
Unit Cost/month	210.22	97.06	49.06	32.90	27.11	22.69	19.11	18.30	11.26	28.68

Total lines	18,288	199,949	97,330	284,576	80,827	800,883	711,582	328,501	288,361	2,809,897
Total lines served by DLC	18,288	193,015	66,401	157,471	36,433	265,080	147,545	49,566	44,725	978,524

	Annual Cost	Units	Unit Cost
End office switching	\$ 157,543,884		
Port	115,006,890	2,260,184 switched lines	\$ 4.24 per line/month
Usage	42,536,795	39,848,596,049 minutes	\$ 0.00107 per minute
Signaling network elements	\$ 26,509,805		
Links	4,466,903	545 links	\$ 682.89 per link per month
STP	20,752,991	33,725,345,715 TCAP+ISUP msgs	\$ 0.00062 per signaling message
SCP	1,289,711	2,305,137,340 TCAP queries	\$ 0.00056 per query
Transport network elements			
<i>Dedicated</i>			
Sw+Sp Transport	\$ 125,388,134	615,485 trunks	\$ 18.98 per DS-0 equivalent per month
Switched	13,395,161	65,752 trunks	\$ 0.00211 per minute
Special	111,992,973	549,733 trunks	
Transmission Terminal	42,644,417	615,485 trunks	\$ 5.77 per DS-0 equivalent per month
			\$ 0.00072 per minute
			\$ 0.00283 total per minute
<i>Common</i>			
Transport	\$ 32,327,161	6,802,090,846 minutes	\$ 0.00603 per minute per leg (orig or term)
Transmission Terminal	1,457,063	6,802,090,846 minutes	\$ 0.00027 per minute
			\$ 0.00630 total per minute
<i>Direct</i>			
Transport	\$ 47,737,703	8,373,769,618 minutes	\$ 0.00570 per minute
Transmission Terminal	2,197,839	8,373,769,618 minutes	\$ 0.00026 per minute
			\$ 0.00596 total per minute
Tandem switch	\$ 2,058,035	4,182,983,688 minutes	\$ 0.00049 per minute
Operator systems	\$ 79,888,151		
Public Telephones	\$ 22,705,789		
Total (w/ Public)	\$ 1,507,676,364		
Total cost of switched network elements (w/o Public)	\$ 42.24 per line/month		

	interconnected at		
	end office	tandem	wld average
Local Interconnection			
EO switching	\$ 0.00107	\$ 0.00107	
ISUP	\$ 0.00082	\$ 0.00082	
Common Transport	\$ -	\$ 0.00830	
Tandem Switching	\$ -	\$ 0.00049	
TOTAL	\$ 0.00169	\$ 0.00848	n/a

IXC switched access			
EO switching	\$ 0.00107	\$ 0.00107	
ISUP	\$ 0.00082	\$ 0.00082	
Dedicated Transport	\$ 0.00283	\$ 0.00283	
Common Transport	\$ -	\$ 0.00830	
Tandem Switching	\$ -	\$ 0.00049	
TOTAL	\$ 0.00452	\$ 0.01131	\$ 0.00609

Signaling detail	
cost per 800 call attempt (TCAP)	\$ 0.0023
ISUP cost/transaction	\$ 0.00379
ISUP cost/completion	0.0056
IXC switched access MOU/comp	8.91
ISUP cost/min	\$ 0.000625
D link per month	\$ 920.34

Dedicated Transport Costs Per Trunk

DS-0 per month	
Transport per month	\$ 16.98
Terminal per month *	\$ 115.48
TOTAL	\$ 132.45

DS-1 per month	
Transport per month	\$ 407.44
Terminal per month	\$ 138.57
TOTAL	\$ 546.02

DS-3 per month	
Transport per month	\$ 11,408.48
Terminal per month	\$ 277.14
TOTAL	\$ 11,685.60

Trunk Port Costs

per trunk port (DS-0 equivalent)	\$
per trunk port minute	#DIV/0!

total EO usage per minute	\$ 0.001068
trk port/min	#DIV/0!
other	#DIV/0!

	0-5 lines/sq mi	5-100 lines/sq mi	100-200 lines/sq mi	200-650 lines/sq mi	650-850 lines/sq mi	850-2550 lines/sq mi	2550-5000 lines/sq mi	5000-10000 lines/sq mi	>10000 lines/sq mi	weighted average
calculated copper feeder fill (non-DLC)	0.0%	54.7%	60.6%	62.0%	63.1%	66.9%	68.7%	69.7%	71.4%	67.9%
calculated distribution fill (DLC)	31.1%	32.0%	31.7%	32.8%	30.9%	32.3%	32.8%	34.2%	34.0%	32.5%
calculated distribution fill (non-DLC)	0.0%	32.5%	32.2%	32.2%	32.3%	32.8%	32.7%	32.8%	31.8%	32.5%
calculated "mainframe fill" (non-DLC)	0.0%	42.6%	39.2%	27.6%	16.1%	12.0%	7.5%	8.9%	14.1%	12.2%

**SWBT Deems the SWBT User Adjustable Inputs
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WHOLESALE DISCOUNTS FOR RESALE OF RETAIL SERVICES

Overview

The method used to establish SWBT's interim prices for wholesale discount for resale of retail services was designed by the FCC and is based on uniform accounting data. The process is to determine how much cost is avoidable if an incumbent telephone company were to become a wholesale company. This avoidable cost model was created by the FCC, although states have the ability to adopt an alternate method. The FCC provided presumed defaults to initialize the model, in essence a presumptive starting place - the cost categories that are presumed avoided and those presumed not to be avoided. Each can then be argued into or out of the study. Adjustments to the cost categories are also possible.

The initial interim rate of 21.61% was based on the default design with disallowing negative cost and considering uncollectible as 100% avoidable. This was modified by the Commission on January 22, 1997 to 20.32% discount for wholesale of retail services. This change was accomplished by reclassifying uncollectibles to be considered avoidable at the rate of the other indirect categories.

In designing the avoidable cost model, the FCC attempted to identify the costs that would be avoidable when an incumbent wholesales a service to a competitor instead of retailing that same service to the customer. The concept is to determine, "If SWBT were to fully convert to a wholesale operation, having no retail customers, what costs should it be able to avoid?" The underlying idea and the reasonableness of any calculation should be related back to this key point. The discount is based on existing retail prices and calculated from uniform accounting data. Decisions have to be made on fifty-eight different cost categories, whether to exclude, include or partially include as avoidable. In addition, there are three variations in methods of calculation.

Both AT&T and MCI advocate the basic FCC method. While MCI advocates the default positions as outlined by the FCC, AT&T advocates some adjustments that would increase the discount above the default values. MCI believes the appropriate discount should be 19.63% discount while AT&T believes the appropriate discount should be 28.61% (each using 1995 ARMIS data).

In the initial phase of arbitration, SWBT proposed a Service-by-Service cost study as an alternate to the FCC designed model. This approach was rejected in favor of the FCC method. SWBT has substantially revised that study and again proposes that a service specific model should be used instead of the basic FCC model.

SWBT proposes that, if the FCC model is used, that the FCC defined defaults be used but that the final calculation of determining the percentage discount use local, toll and access revenue instead of only revenue from local and toll, I. e., services for which the discount would apply. SWBT's modification is at odds with the FCC methodology and is inconsistent with the logic of the model. The SWBT proposed calculation method assumes that access charges are to be discounted, which is not correct. SWBT does not advocate applying the resulting discount to access.

Avoided or Avoidable

SWBT contends that avoidable cost should be defined as costs that the company determines it will actually avoid. The FCC defines it as costs that can be avoided, whether the company chooses to avoid it or not. This is one of the most critical assumptions in the study.

There is the obvious problem of a company that no longer provides a service but contends it will not reduce its costs at all. SWBT contends that, for example, if every SWBT customer is attracted away by a reseller and that reseller provides 100% of the customers operator services directly (not using SWBT's service), no operator service costs should be considered avoidable. The FCC approach is to consider services that would not be performed for the reseller as avoidable and 100% of operator services would be assumed avoided. The definition chosen on "avoided" verses "avoidable" largely determines the outcome of the avoidable cost study.

Analysis of Key Variables

Of the many individual cost account variables, perhaps the greatest effect on the model output is how the five direct cost categories are treated. The standardized accounting system was not designed to particularly separate costs of services being resold from services not being resold. Ideally, avoidable costs should be matched with the services being resold. Since the avoidable cost model concept is relatively new, companies have limited experience in this effort.

The largest service not being resold is access. It theoretically should be possible to separately identify costs associated with access and exclude them from the model. Thus the allocated costs for access in these categories can be removed from the total category costs in order to better reflect the costs associated with only the services being resold. SWBT admits that it is unable to identify costs associated with access at this time. This is largely because the ARMIS accounting categories were never designed to separately track costs by services. However, this imprecision might not be a concern. Not all direct costs are considered fully avoided in the default setting of the model. It may be that by leaving some direct costs as not avoidable serves as a compensation.

Likewise, the entire fifty-eight cost categories could be further scrutinized in the attempt

to separate costs for services that will be resold and those that will not. Should this be done, clearly the revenue categories will have to be better subdivided to match costs and revenues. While this would be a theoretical improvement in the study, the ARMIS data underlying the cost study is not generally differentiated enough to allow these separate calculations. The Staff analysis consistently takes a conservative approach and, therefore, does not assign costs as avoidable in thirty-seven of the fifty-eight cost categories. If, in the future, data is sufficiently detailed to analyze the subcategories with confidence, all of the categories where no costs are currently considered avoided must be reconsidered.

Product Management

Product management (6611) is the development and management of the various services offered for retail, including costs incurred in performing administrative activities related to marketing products and services. The default FCC recommendation is 10% is allocated to the competitor and 90% is avoidable in wholesale. SWBT proposes 90% avoided be assumed if the FCC model is used.

Staff suggests considering the assumed avoided cost in this category in more detail. As products are developed, both SWBT and a competitor, through resale of the product, may receive benefits. Therefore this cost should be shared. SWBT has control over the design of its products. It can time their introduction and with trade marked names, could easily receive relatively more benefit from product management expenses than a competitor. All this argues for SWBT sharing proportionally more of the cost than competitors, that is, avoidable cost being greater than 50%. Assuming, at the extreme, equal benefits, this account is assumed to be avoidable at a 50% rate. (It should be noted that this adjustment deviates from the theory of "avoidable" cost and enters the more murky realm of "benefit" assignment. It might well be appropriate to remain with the default assignment of 90% avoidable. If this adjustment is set at 90% avoidable, then the resulting wholesale discount rate increases by about one-third of one percent (.34%).)

Sales

Sales (6612) is the cost of selling the retail services and includes such costs as determination of individual customer needs, development and presentation of customer proposals. The default FCC recommendation is 10% is allocated to the competitor and 90% is avoidable in wholesale. SWBT proposes 90% avoided be used if the FCC model is used.

These sales costs are those that will naturally shift to the wholesale customer and should be largely avoidable. Retail customer contact will be the responsibility of the company reselling SWBT's service. Some wholesale sales contact will be required. Leaving 10% of the cost in the category as unavoidable is to recognize that not all cost can be avoided. The costs associated with this category is assumed to be 90% avoidable.

Product Advertising

Product advertising (6613) includes costs incurred in developing and implementing promotional strategies to stimulate the purchase of products and services. The default FCC recommendation is 10% is allocated to the competitor and 90% is avoidable in wholesale. SWBT proposes 90% avoided be assumed if the FCC model is used.

SWBT will advertise its services in competition with the competitor's resold service. Joint advertising will not likely occur, as every customer the competitor serves in SWBT territory through resale is a customer SWBT would otherwise serve. SWBT proposes that joint advertising will occur. As an analogy, they cite "Intel inside" joint advertising by a computer chip wholesaler that benefits the manufacturer of computers selling to the end user. This analogy is flawed. The chip maker does not compete with the computer maker for retail sales to the same customers. SWBT also cites Proctor & Gamble and Lucent in a similar fashion.

There is no compellingly rational reason SWBT would assist a competitor by jointly advertising that competitor's product in direct competition to its own. Every sale the competitor makes through resale is one that SWBT could make directly. If it is true that SWBT would want to have the resellers make sales in leu of SWBT directly, then it must be that SWBT will make increased profits from shifting direct retail provision of service to wholeselling the service through resellers. This is contrary to SWBT's stated position. This account is assumed to be avoidable at a 90% rate.

Operator Services

Call Completion:

Call completion (6621) includes costs incurred in helping customers place and receive calls, except directory assistance. The default FCC recommendation is 0% is allocated to the competitor and 100% is avoidable in wholesale. SWBT proposes 100% avoided be used if the FCC model is used.

Number Services:

Number services (6622) includes costs incurred in providing customer numbers and classified listings. The default FCC recommendation is 0% is allocated to the competitor and 100% is avoidable in wholesale. SWBT proposes 100% avoided be used if the FCC model is used.

Operator services, collectively call completion and number services, poise a particular dilemma for calculating the wholesale discount. The default FCC recommendation is 0% is allocated to the competitor and 100% is avoidable in wholesale. This recognizes that competitors will provide their own operator services. In resale, operator services has its own separate charge and represents an additional revenue flow to SWBT and an additional cost to the reseller.

Assuming a 100% discount is equivalent to assuming the reseller is providing all of its own operator services. Assuming a 0% discount is equivalent to assuming the reseller is not providing any of its own operator services. Likely the reality is that some resellers will be providing operator services and some will not. Since the discount, if assumed 100% avoidable, has already eliminated the cost of operator services, there might be an incentive for the reseller to not provide its own operator services. Thus SWBT would be providing a service at a price where its cost has been removed. Likewise, if the operator service costs are not removed when establishing the wholesale rate, and the reseller does provide operator services, that company would be paying SWBT for service it does not receive.

There are at least three methods of correcting this mismatch of what the reseller pays and the service it receives. The first, and simplest, is to assume a mix of reseller customers who will be receiving SWBT operator services and will be receiving the reseller's operator services. Assuming, for example, 75% of the resale customers receive operator services from the reseller, then 75% of SWBT operator services should be considered avoidable. Accurately selecting the proper percentage absent any history is obviously difficult. This analysis also assumes that all, or at least most, of the cost of operator services is covered by the additional charge the reseller must pay. Should the charge not cover the expense, then any shortfall in cost recovery is being shifted to other services. It is not clear if this situation exists in SWBT. No such adjustment has been attempted in the current analysis.

The second method is to establish two wholesale discount rates applying to all services; one rate if the resale customer service is provided with operator services and a separate one without. If the reseller provides its own operator services it will receive a larger discount which recognizes that SWBT can avoid more costs for this reseller. The reseller that uses SWBT operator services will receive a lower discount, recognizing the added cost of serving these customers. These discount rates for SWBT would be:

Operator services 100% avoidable, the reseller providing operator services = 19.20%
Operator services 0% avoidable, the reseller NOT providing operator services = 13.91%

There is at least one significant criticism of the full service two-tiered approach. One reseller would receive, say, a discount of almost 14% for a service like toll if it also used SWBT operator services. Another reseller would receive, by virtue of providing its own operator services, a higher discount for toll - over 19%. But the avoidable cost for toll, as a specific service, did not necessarily change. Any two-tier discount encounters this problem. One solution is to set an entire schedule of discount rates for all components of resale. This is the approach SWBT takes in its Service Group Analysis. Any attempt at this approach quickly encounters the problem that standardized accounting was not designed to differentiate between the many services being offered the retail customer.

The third method, a variation on the full two-tier approach, is to establish one overall discount rate but separate only operator services into a distinct category with its own discount rate. (If the operator services discount rate is identical with the general discount, the solution degenerates to be identical to that of a single discount rate.) In determining the separate discount rate, the one overall rate generated by not excluding operator

services, that is, the model calculated as above with 0% operator services avoided, is used. This discount rate would only apply to operator services as an individual service. This approach is practical as operator service is separately charged for and represents an additional revenue stream to the wholeselling company. The separate discount that would apply only to operator services would be 13.91%.

Staff advocates this last method, the variation of the two-tier approach, having an overall discount rate for all services excepting operator service be 19.20% and a separate discount, for operator service only, be 13.91%.

Customer Services

Customer Services (6623) includes costs incurred in establishing and servicing customer accounts, such as collecting pay station receipts, account collection costs as well as operator service commissions. The default FCC recommendation is 10% is allocated to the competitor and 90% is avoidable in wholesale. SWBT proposes 90% avoided be used if the FCC model is used.

These services are those that will naturally shift to the wholesale customer and should be largely avoidable. Retail customer contact will be the responsibility of the company reselling SWBT's service. Some wholesale customer contact will be required. Leaving 10% of the cost in the category as unavoidable is to recognize that not all cost can be avoided. Customer Services is assumed to be 90% avoidable.

Indirect Costs

Over fifty indirect costs are identified by the FCC for determination of whether they contain avoidable costs. These costs include uncollectibles as well as four network cost and ten corporate overhead cost categories. The default method proposed by the FCC is to assume uncollectibles, four network and all corporate overhead costs are potentially avoidable. The default method of determining the appropriate level of avoidable costs is to take the percentage of direct costs of total costs and assume that portion of those identified are in the fifteen categories. The amount of the fifteen overhead costs calculated as avoided is dependent on the costs considered avoided in the direct cost categories. Since the allocator for indirect costs is derivative of decisions made in determining avoidable direct costs, no adjustments to the method of assigning indirect costs is suggested.

There is a slight ambiguity in the FCC method of calculating the indirect cost allocator. Staff calculates it as avoided direct costs divided by total costs. SWBT calculates it as avoided direct costs divided by total direct costs. The SWBT method results in a higher percent allocator while Staff's method results in a lower rate. Staff's method lowers the overall discount in SWBT's favor by about one-half of one percent. While SWBT's interpretation of the FCC method may be correct, Staff maintains its conservative position

that is, by comparison, more beneficial to the incumbent.

Revenue Base

The final critical decision is to determine the revenue base, the denominator in the equation of avoidable costs over revenue. Since the avoidable costs are those avoidable in wholeselling retail services, the revenue base used in the calculation should be those same retail services, i.e., local and toll. This is consistent with the FCC calculation method. SWBT proposes that in addition to local, toll, that access revenue also be added to this calculation. By adding access revenue to the calculation, SWBT decreases the discount rate by greater than 6 percentage points (19.20% drops to 13.14%). This method is invalid because it assumes, incorrectly, that the discount applies to access charges. It does not. Therefore, only the revenue for which the discount applies is used in the calculation, i.e., local and toll.

SWBT's Service Group Study

SWBT advocates that a Service Group analysis be substituted for the FCC method. While the concept is attractive, that is, developing different discounts for different services, the present development of the method does not allow for Staff support at this time. The Service Group study requires similar assumptions about direct cost categories as is necessary when using the FCC method. SWBT's assumptions are:

6611 Product Management	0% avoidable
6612 Sales	80% avoidable
6613 Advertising	0% avoidable
6621 Call Completion	0% avoidable
6622 Number Services	0% avoidable
6623 Customer Services	75% avoidable
Indirect Costs, 6121-6124 only	

This approach results in different discounts for each of the 25 Service Groups defined by SWBT (see chart below).

To understand the magnitude of these multiple discount rates, it is important to determine the overall discount achieved by this method. Two different methods were used to estimate this overall discount. Inputting the above assumptions into the FCC model results in an estimate of a maximum overall discount of 9.2%. A more detailed calculation of avoided costs supplied by account from SWBT divided by the appropriate revenue results in a 9.0% overall discount. The more detailed method is consistent with the first approach and should be more accurate. It is no surprise that the overall discount of 9% is so much lower than the FCC method as the assumptions concerning avoided direct costs are so different.

Taking the SWBT Service Group method and extrapolating it to reach the overall discount of 19.20% results in what the Service Group analysis might provide if the assumptions were the same as the FCC method. This extrapolation provides an estimate and is only used as an illustration. If SWBT had used the same avoidable costs used to reach the overall 19.20% discount, the discounts by service would not necessarily be identical to a simple extrapolation.

The SWBT Service Group analysis results in some unusual relationships between residential and business. The discount is based on charges, therefore is sensitive to different retail rates. While the "lines" discount is consistent with the fact that business charges are higher, the same cannot be said of "MTS." Besides the overall low discount based on assuming little avoidable costs, the inconsistent relationship between the discounts suggests that the Service Group method is not yet perfected.

Staff does not recommend the Service Group approach be used for establishing the wholesale discount at this time.

SWBT Service Group Analysis

Adjusted to match overall discount implied by SWBT by Group

	SWBT Proposed Discount	Adjusted to Discount of:
Overall Discount:	<u>9.00%</u>	<u>19.20%</u>
RESIDENCE:		
Lines	16.28%	34.73%
Optional Exchange Service	7.35%	15.68%
Call Management Service	11.60%	24.75%
Caller ID Services	16.53%	35.26%
Other Vertical Services	29.90%	63.79%
Remote Call Forwarding	21.11%	45.03%
Wide area Telephone Service	15.02%	32.04%
Toll Optional Calling Plans	10.46%	22.31%
MTS	7.98%	17.02%
OPERATOR SERVICES:		
Operator Services	3.15%	6.72%
BUSINESS:		
Lines	7.05%	15.04%
Optional Exchange Service	6.07%	12.95%
Call Management Service	8.65%	18.45%
Caller ID Services	9.15%	19.52%
Other Vertical Services	11.98%	25.56%
Remote Call Forwarding	9.27%	19.78%
Wide area Telephone Service	8.10%	17.28%
Toll Optional Calling Plans	14.09%	30.06%
MTS	4.11%	8.77%
Plexar 1	10.13%	21.61%
Digital Link Services	23.62%	50.39%
Plexar 2	24.64%	52.57%
Trunks	8.56%	18.26%
ISDN	14.80%	31.57%
Analog Private Line	6.90%	14.72%

Final Calculation Method, Results and Recommendation

The basic FCC defined method of calculating a discount rate was used. The FCC default avoidable rate for avoidable direct costs was adjusted. A default calculation results in a discount of 19.54%. By lowering the product management avoidable cost to 50% avoided on the basis of reasonableness and fairness, not strictly an avoidable criteria, the discount is lowered to 19.20%. Thirty-seven cost accounts were not considered to have avoidable costs. This analysis represents a conservative approach.

There is benefit to be derived from a multi-tiered discount rate. It recognizes the concept that different services will likely have different percentage of avoidable cost. The revised Service-by-Service study, now termed Service Group method, of SWBT is an attempt to develop these separate discounts. However, the method does not appear robust enough to be recommended at this time.

Incorporating the decisions as detailed above, Staff recommends that the wholesale discount for resold services be 19.20% for all services except operator services. Taking the basic method and adjusting the operator service categories to 0% avoided results in a discount of 13.91% that can specifically be applied to operator services. Staff recommends a discount of 13.91% for operator services only.

Calculation Detail by Account of Development of Wholesale Discount:

Resale Study for SWBT

Avoided Cost Study, 1996 ARMIS Data

		Total Missouri	%	SWBT
Costs:		Regulated	Avoided	Avoided
		(\$000)		(\$000)
Direct:				
6611	Product Management	7206	50%	3603
6612	Sales	22214	90%	19993
6613	Product Advertising	11022	90%	9920
6621	Call Completion services	11181	100%	11181
6622	Number Services	34145	100%	34145
6623	Customer Services	95206	90%	85685
Indirect:				
5301	Uncollectible Revenue	16669	15.67%	2612
6112	Motor Vehicle Exp.	826	0.00%	0
6113	Aircraft Exp.	0	0.00%	0
6114	Spec Purpose Vehicle	0	0.00%	0
6115	Garage Work Equipment	14	0.00%	0
6116	Other Work Equipment	141	0.00%	0
6121	Land & Buld Exp.	-9877	15.67%	-1548
6122	Furniture & Artwork	-219	15.67%	-34
6123	Office Exp.	2552	15.67%	400
6124	Gen Purpose Computers	-23693	15.67%	-3713
6211	Analog Electronic Exp.	15021	0.00%	0
6212	Digital Electronic Exp.	42980	0.00%	0
6215	Electro-mech Exp.	93	0.00%	0
6220	Operators Exp.	300	0.00%	0
6231	Radio System Exp.	358	0.00%	0
6232	Circuit System Exp.	19641	0.00%	0
6311	Station Apparatus Exp.	1	0.00%	0
6341	Lg PBX/Exp.	201	0.00%	0
6351	Public Tel Term Eq Exp.	4163	0.00%	0
6362	Other Terminal Eq Exp.	20051	0.00%	0
6411	Poles Exp.	1684	0.00%	0
6421	Aerial Cable Exp.	47185	0.00%	0
6422	Underground Cable Exp.	6641	0.00%	0
6423	Buried Cable Exp.	66906	0.00%	0

6424	Submarine Cable Exp.	0	0.00%	0
6425	Deep Sea Cable Exp.	0	0.00%	0
6426	Intrabuilding Network Cable	36	0.00%	0
6431	Aerial Wire Exp.	27	0.00%	0
6441	Conduit Systems Exp.	806	0.00%	0
6511	Telecomm Use Exp.	0	0.00%	0
6512	Provisioning Exp.	28	0.00%	0
6531	Power Exp.	4598	0.00%	0
6532	Network Admin Exp.	13298	0.00%	0
6533	Testing Exp.	38402	0.00%	0
6534	Plant Operations Admin	29487	0.00%	0
6535	Engineering Exp.	17813	0.00%	0
6540	Access Exp.	53298	0.00%	0
6561	Depreciation Telecom plant	347816	0.00%	0
6562	Depreciation Future Telecom	0	0.00%	0
6563	Amortization Exp. - Tangible	683	0.00%	0
6564	Amortization Exp. - Intangible	0	0.00%	0
6565	Amortization Exp. - Other	5298	0.00%	0
6711	Executive	5562	15.67%	872
6712	Planning	1727	15.67%	271
6721	Accounting & Finance	12106	15.67%	1898
6722	External Relations	19542	15.67%	3063
6723	Human Resources	16480	15.67%	2583
6724	Information Management	43707	15.67%	6851
6725	Legal	5192	15.67%	814
6726	Procurement	3682	15.67%	577
6727	Research and Development	5739	15.67%	900
6728	Other Gen & Admin	31882	15.67%	4997
Total		<u>\$868,667</u>		<u>\$185,069</u>

Revenues:

		% Included:	Included:
Local Service	807299	100%	807299
Toll Network Service	156649	100%	156649
Network Access Service	444248	0%	0
Miscellaneous	172704	0%	0
Total	<u>\$1,580,900</u>		<u>\$963,948</u>

Resale Percentage Discount on Revenue:

% of Resold Services Revenue	19.20%
(Local & Toll Network Service)	

ATTACHMENT B

Cost Issues:

1. What costing model should the Commission utilize in this proceeding?
2. What capital costs should be utilized in cost in TELRIC cost studies?

Network Issues:

Unbundled Network Elements

3. What unbundled network elements should SWBT be required to make available?
4. Should loop cross connect be a separate unbundled network element?
5. Should SWBT be required to offer sub-loop unbundling?
6. Should SWBT be required to offer dark fiber at this time?
7. Should NID be unbundled beyond what the FCC required?
8. Should there be any limitations or restrictions on an LSP's use of Unbundled Network Elements?
9. Should there be a bona fide request process for additional Unbundled Network Elements?

Physical Interconnection and Collocation

10. How should the Parties interconnect their networks?
11. What types of number portability should be provided by SWBT?
12. How should the costs of INP be recovered?

White Pages

13. How should SWBT be required to manage LSP White Page Directory Information and Directory Assistance Information?

Numbering Issues

14. What practices and procedures must SWBT use relating to Number Administration and area code relief activities?